

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Orange, Lousia
STREAM NAME: South Anna River
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F01R_SAR02A02
SEGMENT SIZE: 7 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of the South Anna River
RIVER MILE: 103.93
LATITUDE: 38.16861 **LONGTITUDE:** -78.21556

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence of Dove Fork
RIVER MILE: 96.93
LATITUDE: 38.08278 **LONGTITUDE:** -78.18194

Segment starts at the headwaters of the South Anna River downstream to the confluence of Dove Fork to the South Anna River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The DEQ maintains an ambient water quality monitoring station (8-SAR097.82) at Route 603. The monitoring data from this station revealed the following during the 2002 305(b) report assessment period:

- 1) Not supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances (9 of 24 samples - 37.5%);
- 2) Fully supporting but threatened of the CWA's Aquatic Life Use goal due sufficient exceedances of the phosphorous screening level of 200 ug/L (13 of 23 samples - 56.5%).

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Louisa
STREAM NAME: Taylors Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F03R_TLR01A00
SEGMENT SIZE: 16.26 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Taylors Creek
RIVER MILE: 16.26
LATITUDE: 37.87083 **LONGTITUDE:** -77.82417

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the South Anna River
RIVER MILE: 0.00
LATITUDE: 37.75583 **LONGTITUDE:** -77.63028

Segment starts at the headwaters of Taylors Creek downstream to the confluence with the South Anna River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 20 samples - 15%) were recorded at DEQ's water quality monitoring station (8-TLR002.54) at Route 673 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover
STREAM NAME: South Anna River
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F04R_SAR03A98
SEGMENT SIZE: 4.63 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2008
UPSTREAM LIMIT:

DESCRIPTION: Ashland Municipal STP discharge
RIVER MILE: 4.83
LATITUDE: 37.80850 **LONGTITUDE:** -77.47140

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth
RIVER MILE: 0.00
LATITUDE: 37.80310 **LONGTITUDE:** -77.40820

The South Anna River from the Ashland Municipal STP near the confluence with Falling Creek downstream to its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Fecal coliform violation rate of 11/58 at the Route 738 bridge (8-SAR001.11).

IMPAIRMENT SOURCE Unknown

The source is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover
STREAM NAME: South Anna River
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F04R_SAR01A98
SEGMENT SIZE: 22.22 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2008
UPSTREAM LIMIT:

DESCRIPTION: Taylors Creek
RIVER MILE: 22.52
LATITUDE: 37.75570 **LONGTITUDE:** -77.63060

DOWNSTREAM LIMIT:

DESCRIPTION: Ashland Municipal STP
RIVER MILE: 4.83
LATITUDE: 37.80850 **LONGTITUDE:** -77.47140

The South Anna River from Taylors Creek downstream to the Ashland Municipal STP discharge near the confluence with Falling Creek. Includes PWS Section 8-3a.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Fecal coliform violation rate of 7/26 at the Route 33 bridge (8-SAR021.22).

IMPAIRMENT SOURCE Unknown

The source is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Orange
STREAM NAME: Beaver Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F06R_BRC01A02
SEGMENT SIZE: 2.51 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence of Cooks Creek
RIVER MILE: 2.51
LATITUDE: 38.16528 **LONGTITUDE:** -78.04861

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the North Anna River
RIVER MILE: 0.00
LATITUDE: 38.14139 **LONGTITUDE:** -78.02250

Segment begins at the confluence of Cooks Creek and Beaver Creek, approximately 0.68 rivermiles upstream from the Route 638 bridge, downstream to its confluence with the North Anna River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (6 of 20 samples - 30 %) were recorded at DEQ's water quality monitoring station (8-BRC001.88) at Route 638 to assess this stream segment as not supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Louisa
STREAM NAME: Goldmine Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F06R_GMC01A00
SEGMENT SIZE: 7.16 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Goldmine Creek
RIVER MILE: 8.59
LATITUDE: 38.02222 **LONGTITUDE:** -77.96472

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Anna
RIVER MILE: 1.43
LATITUDE: 38.10444 **LONGTITUDE:** -77.95639

Segment includes all of Gold Mine Creek from the headwaters to the confluence with Lake Anna.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 23 samples - 17.4%) were recorded at DEQ's water quality monitoring station (8-GMC002.19) at Route 613 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Orange
STREAM NAME: Mountain Run
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F06R_MTN01A00
SEGMENT SIZE: 2.52 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence of Madison Run
RIVER MILE: 2.52
LATITUDE: 38.17083 **LONGTITUDE:** -78.12778

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with the North Anna River
RIVER MILE: 0.00
LATITUDE: 38.15139 **LONGTITUDE:** -78.09389

Segment begins at the confluence of Madison Run and Mountain Run downstream to its confluence with the North Anna River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 20 samples - 20 %) were recorded at DEQ's water quality monitoring station (8-MTN000.96) at Route 643 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Spotsylvania, Louisa
STREAM NAME: Lake Anna
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F07L_NAR01A02
SEGMENT SIZE: 2450 - Acres
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: The northern end of the Route 690 bridge

RIVER MILE: ~38.2

LATITUDE: 38.03417 **LONGTITUDE:** -77.74333

DOWNSTREAM LIMIT:

DESCRIPTION: The dam

RIVER MILE: 34.58

LATITUDE: 38.01361 **LONGTITUDE:** -77.71306

Segment includes the lower portion of Lake Anna beginning near the northern end of the Rt. 690 bridge downstream to the dam. Acreage is approximate.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded at DEQ's fish tissue/sediment monitoring station 8-NAR034.92, approximately 0.5 rivermiles upstream from the dam near Route 622, to assess this segment as partially supporting of Clean Water Act's (CWA's) Fish Consumption Use goal. The SV for PCB's was exceeded in one species (channel catfish) in samples collected in October, 1994, and May, 2000.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Louisa
STREAM NAME: Lake Anna / Contrary Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F07L_CON01A02
SEGMENT SIZE: 614 - Acres
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Beginning of inundated waters of Contrary Creek

RIVER MILE: ~3.84

LATITUDE: 38.06333 **LONGTITUDE:** -77.85806

DOWNSTREAM LIMIT:

DESCRIPTION: Where the Contrary Creek arm joins the main body of the lake.

RIVER MILE: 0.00

LATITUDE: 38.07944 **LONGTITUDE:** -77.81194

Segment includes the Contrary Creek arm of Lake Anna, beginning at the start of the inundated waters of Contrary Creek. The Freshwater Creek arm is not included in the segment.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Sufficient exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded at DEQ's fish tissue/sediment monitoring station 8-CON003.84 to assess this segment as partially supporting of Clean Water Act's (CWA's) Fish Consumption Use goal. The SV for PCB's was exceeded in two species (channel catfish and carp) in samples collected May 11, 2000. In addition, the ER-M criteria for copper (270 ppm, dry weight), lead (218 ppm, dry weight), and zinc (410 ppm, dry weight) were exceeded in sediment samples collected May 11, 2000, at the same station. As a result, this segment was assessed as fully supporting but threatened of the CWA's Aquatic Life Use goal in the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Louisa
STREAM NAME: Lake Anna / Gold Mine Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F07L_GMC01A02
SEGMENT SIZE: 96 - Acres
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Beginning of inundated waters of Gold Mine Creek

RIVER MILE: ~1.43

LATITUDE: 38.10417 **LONGTITUDE:** -77.95639

DOWNSTREAM LIMIT:

DESCRIPTION: Where the Gold Mine Creek arm joins the North Anna River arm of the lake.

RIVER MILE: 0.00

LATITUDE: 38.11389 **LONGTITUDE:** -77.94000

Segment includes the Gold Mine Creek arm of Lake Anna, beginning at the start of the inundated waters of Gold Mine Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Sufficient exceedances of the human health-risk based screening value (SV) of 54 parts per billion (ppb) for polychlorinated biphenyls (PCBs) in fish tissue were recorded at DEQ's fish tissue/sediment monitoring station 8-GMC001.43 to assess this segment as partially supporting of Clean Water Act's (CWA's) Fish Consumption Use goal. The SV for PCB's was exceeded in two species (striped bass and largemouth bass) in samples collected August 30, 2000.

IMPAIRMENT SOURCE Unknown

The source of impairment is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Orange
STREAM NAME: Pamunkey Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F07R_PMC01A00
SEGMENT SIZE: 12.14 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence of Tomahawk Creek and Church Creek, where Pamunkey Creek begins

RIVER MILE: 21.20

LATITUDE: 38.22444 **LONGTITUDE:** -78.07167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Anna

RIVER MILE: 9.06

LATITUDE: 38.14639 **LONGTITUDE:** -77.93500

Segment begins at the confluence of Tomahawk Creek and Church Creek, where Pamunkey Creek begins, and continues downstream to the confluence with Lake Anna.

The lower portion of this segment, from the confluence of Clear Creek with Pamunkey Creek downstream to the lake, was listed in the 1998 303(d) report. The upstream portion was added to the 1998 303(d) listed segment because of an additional monitoring station established on Pamunkey Creek at Route 630 (rivermile 14.75).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances were recorded at DEQ's water quality monitoring stations at Route 651 (8-PMC009.85) and Route 630 (8-PMC014.75) to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report. Four of 19 samples (21%) exceeded the instantaneous fecal bacteria standard at station 8-PMC009.85; two of 13 samples (15.4%) exceeded the standard at station 8-PMC014.75.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Orange
STREAM NAME: Terrys Run
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F07R_TRY01A00
SEGMENT SIZE: 5.45 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence with Horsepen Branch
RIVER MILE: 8.91
LATITUDE: 38.23083 **LONGTITUDE:** -77.89806

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Anna
RIVER MILE: 3.46
LATITUDE: 38.16861 **LONGTITUDE:** -77.91611

Segment starts at the confluence of Horsepen Branch to Terrys Run and continues downstream to the confluence of Terrys Run to Lake Anna.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform - 1.83 miles, Dissolved Oxygen - 3.62 miles

The DEQ maintains an ambient monitoring station (8-TRY004.98) at Route 629, and established a special study station (8-TRY006.72) at Route 624. The monitoring data from these stations revealed the following during the 2002 305(b) report assessment period:

1) Partially supporting of the Clean Water Act's (CWA's) Swimming Use goal due to sufficient fecal coliform bacteria exceedances. Four of 20 samples (20%) exceeded the instantaneous fecal coliform bacteria standard at station 8-TRY004.98. The segment is considered partially supporting of the swimming use in the 1.83-mile reach beginning at the confluence of Riga Run to Terrys Run and continuing downstream to the confluence of Terrys Run to Lake Anna;

2) Partially supporting of the CWA's Aquatic Life Use goal due to sufficient excursions below the minimum dissolved oxygen criteria at station 8-TRY006.72. Two of 11 samples (18.2%) were below the minimum DO level (4.0 mg/L) for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. The segment is considered partially supporting of the Aquatic Life Use in the 3.62-mile reach beginning at the confluence of Horsepen Branch to Terrys Run continuing downstream to the confluence of Riga Run to Terrys Run.

Note that the entire segment was included in the 1998 303(d) report for partially supporting the swimming use due to fecal coliform bacteria exceedances. The special study monitoring station 8-TRY006.72 was established based on the 1998 303(d) listing of this segment. The fecal coliform TMDL for this segment must be developed by 2010 in accordance with the Consent Decree. The DO TMDL may extend to 2014.

IMPAIRMENT SOURCE Unknown

The source of impairments is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Spotsylvania
STREAM NAME: Plentiful Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F07R_PLT01A00
SEGMENT SIZE: 3.15 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Confluence of an unnamed tributary
RIVER MILE: 4.94
LATITUDE: 38.17583 **LONGTITUDE:** -77.84333

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Anna
RIVER MILE: 1.79
LATITUDE: 38.14750 **LONGTITUDE:** -77.85917

Segment begins at the confluence of an unnamed tributary to Plentiful Creek, upstream from the Route 601 bridge, and continues downstream to the confluence with Lake Anna.

The 1998 303(d) list identified a 4.94-mile segment length for Plentiful Creek. This mileage included the inundated waters of Lake Anna in the Plentiful Creek arm of the lake. The current segment size only accounts for the free-flowing portion of Plentiful Creek and does not include the inundated waters of Lake Anna.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 20 samples - 20%) were recorded at DEQ's water quality monitoring station (8-PLT002.82) at Route 653 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Louisa
STREAM NAME: Contrary Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAN-F08R_CON01A00
SEGMENT SIZE: 5.49 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Contrary Creek
RIVER MILE: 9.33
LATITUDE: 38.02444 **LONGTITUDE:** -77.92194

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Lake Anna
RIVER MILE: ~3.84
LATITUDE: 38.06333 **LONGTITUDE:** -77.85806

Segment begins at the headwaters of Contrary Creek and continues downstream to the confluence with Lake Anna.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

Sufficient violations of the pH water quality criteria were recorded at the DEQ water quality monitoring station (8-CON005.38) at the Route 522 bridge to assess this segment as not supporting of the Clean Water Act's (CWA's) Aquatic Life Use goal in the 2002 305(b) report. Twenty-three (23) of 23 samples (100%) were below the lower range (6.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards. Additional factors that threaten the aquatic life use in this stream segment include: (1) exceedances of the acute copper and zinc water quality criteria (1 of 1 sample each) in samples collected in July, 1998; (2) an exceedance of the ER-M for copper in sediment (270 ppm, dry weight) in sampling conducted in August, 1996 (1 of 1 sample).

IMPAIRMENT SOURCE Resource Extraction/Abandoned mining

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Spotsylvania
STREAM NAME: Northeast Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F09R_NST01A98
SEGMENT SIZE: 1.04 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Tributary upstream of Route 622.
RIVER MILE: 4.46
LATITUDE: 38.04630 **LONGTITUDE:** -77.69430

DOWNSTREAM LIMIT:

DESCRIPTION: Tributary downstream of Route 622.
RIVER MILE: 2.05
LATITUDE: 38.03350 **LONGTITUDE:** -77.69510

Northeast Creek as noted around the Route 622 bridge.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

In 1998, the segment was assessed fully supporting but threatened of the Aquatic Life use support goal based on an exceedance of the NOAA ER-M for zinc in a sample collected in 1995 at 8-NST003.46. The station was resampled in 1999 and the zinc level was below the ER-M, therefore zinc should be removed as a cause of concern.

During the 2002 cycle, the segment is assessed partially supporting of the Aquatic Life and Swimmable Uses (DO 2/18, FC 2/19 at 8-NST003.46). The TMDL for these impairments would be due in 2014.

IMPAIRMENT SOURCE Unknown

The source of the dissolved oxygen violations is unknown but is suspected to be caused by natural conditions during low-flow periods. The source of the fecal coliform is considered unknown. Due to a question regarding the validity of some of the data, continued monitoring to verify the impairment is recommended.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover
STREAM NAME: Mechumps Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F12R_MCP01A94
SEGMENT SIZE: 5.53 - Miles
INITIAL LISTING: 1994 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Confluence with Slayden Creek
RIVER MILE: 5.69
LATITUDE: 37.75020 **LONGTITUDE:** -77.40790

DOWNSTREAM LIMIT:

DESCRIPTION: Pamunkey River confluence
RIVER MILE: 0.00
LATITUDE: 37.76650 **LONGTITUDE:** -77.33780

Mechumps Creek from its confluence with Slayden Creek to the Pamunkey River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

Sufficient pH violations were recorded at DEQ's Ambient Monitoring Station 8-MCP002.42, located at the Route 301 bridge, to assess this stream as partially supporting the Clean Water Act's Aquatic Life Use goal for the 1994 305(b) report.

The segment was similarly assessed this cycle based on a pH violation rate of 3/26 at 8-MCP002.42.

The segment was assessed partially supporting of the Swimmable use support goal based on a fecal coliform standard violation rate of 3/26 at 8-MCP002.42.

IMPAIRMENT SOURCE Unknown

The source of the Impairment in this segment is currently unknown.

Leachete from contaminated soils upstream in the drainage basin may be contributing to the impairment of this stream segment. However this has not been verified and Mechumps Creek also exhibits characteristics of swamps upstream of the monitoring station.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover
STREAM NAME: Pamunkey River
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F12R_PMK01A00
SEGMENT SIZE: 18.85 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: North and South Anna River Confluence
RIVER MILE: 94.65
LATITUDE: 37.80320 **LONGTITUDE:** -77.40780

DOWNSTREAM LIMIT:

DESCRIPTION: Millpond Creek
RIVER MILE: 75.8
LATITUDE: 37.73880 **LONGTITUDE:** -77.29940

Pamunkey River from the confluence of the North and South Anna Rivers to Millpond Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The Pamunkey River was included on EPA's list of "Waters Identified to Virginia for Listing Consideration During Development of the Next List." Fecal coliform at 8-PMK082.34 was listed as the parameter of concern. During the 2002 assessment cycle, the segment was assessed as partially supporting the Swimmable Use goal based on a fecal coliform violation rate of 6/54 at the Route 614 bridge (8-PMK082.34).

IMPAIRMENT SOURCE Unknown

Source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: King William, New Kent
STREAM NAME: Pamunkey River
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F13E_PMK02A98
SEGMENT SIZE: 0.84 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Route 654, Pampatike Landing
RIVER MILE: 48.80
LATITUDE: 37.66720 **LONGTITUDE:** -77.13670

DOWNSTREAM LIMIT:

DESCRIPTION: Macon Creek
RIVER MILE: 37.31
LATITUDE: 37.59710 **LONGTITUDE:** -77.05510

From Pampatike Landing to Macon Creek (the downstream boundary of watershed F13). Nested within VAP-F13E-01.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The Pamunkey River was initially listed on the 1998 303(d) list as partially supporting the Swimmable Use goal because of fecal coliform violations at Pampatike Landing (Route 654). EPA also identified the station on their list of "Waters Identified to Virginia for Consideration During Development of the Next Listing Cycle." This inclusion was probably in error as the segment was already 303(d) listed. During the 2002 assessment cycle, the segment continues to only partially support the Swimming use goal with a fecal coliform violation rate of 6/57 at Pampatike Landing (8-PMK048.80).

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown.

Targeted monitoring is necessary to further delineate the extent of impairment and to characterize its causes and sources.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover, King William , New Kent
STREAM NAME: Pamunkey River
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F13E_PMK02A98
SEGMENT SIZE: 10.71 - Sq. Mi.
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Extent of tide at Totopotomoy Creek
RIVER MILE: 60.22
LATITUDE: 37.66720 **LONGTITUDE:** -77.13670

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth
RIVER MILE: 0.00
LATITUDE: 37.52290 **LONGTITUDE:** -76.79960

From the extent of tide at Totopotomoy Creek to the mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, EPA Overlisting (General Standards)

The segment was initially listed on the 1998 303(d) list as fully supporting but threatened of the aquatic life use goal because a 1995 special study showed river subject to 33% violation rate of daily mean DO standard during warm weather conditions May through October. Estuarine Pamunkey River is considered fully allocated relative to dissolved oxygen. New discharges cannot result in further DO depression.

The Chesapeake Bay and its tidal tributaries were added by EPA to the 1998 303(d) list. EPA listed the impairment as dissolved oxygen violations caused by nutrient overenrichment. This listing included the entire mainstem estuarine Pamunkey River.

During the year 2002 cycle, the DO violation rate was 1/59 at 8-PMK048.80, 12/168 at 8-PMK006.36, and 10/172 at 8-PMK034.17. No chlorophyll A violations were recorded.

DEQ's addition of turbidity as an impairment cause is based on the best scientific information available since the EPA overlisted this segment in 1999 for nonattainment of aquatic life use due to nutrients.

IMPAIRMENT SOURCE Unknown

Tidal marshes contribute to organic loading resulting in DO depressions and full allocation judgment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: King William
STREAM NAME: Monquin Creek, Webb Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F13R_MNQ01A98
SEGMENT SIZE: 11.83 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters of Webb Creek

RIVER MILE: 6.09

LATITUDE: **LONGTITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Swamp at river mile 2.0

RIVER MILE: 2.00

LATITUDE: 37.68780 **LONGTITUDE:** -77.14180

From the headwaters of Webb Creek downstream to the swampy area around river mile 2.0.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

Assessed not supporting of the Aquatic Life and Swimmable Uses because of fecal coliform and pH exceedances.

Fecal coliform 5/24 at 8-MNQ004.19 (Rt. 618)

pH 7/24 at the 8-MNQ004.19;

pH 1/1 at 8-WEB002.00 (1995 study)

Segment extended during 2002 cycle to incorporate the station on Webb Creek.

IMPAIRMENT SOURCE Unknown

Natural conditions suspected source of pH violations;
The fecal coliform source is unknown

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: New Kent
STREAM NAME: Black Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F13R_BLC01A00
SEGMENT SIZE: 2.61 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Southern Branch Clompton Swamp
RIVER MILE: 2.61
LATITUDE: 37.57260 **LONGTITUDE:** -77.09110

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth
RIVER MILE: 0.00
LATITUDE: 37.59480 **LONGTITUDE:** -77.07960

Black Creek downstream of the first major upstream tributary.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Partially supporting of the Swimmable Use because of fecal coliform exceedances (3/24) at the Route 608 bridge (8-BLC001.77).

IMPAIRMENT SOURCE Unknown

Source is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover
STREAM NAME: Totopotomoy Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F13R_TPT01A98
SEGMENT SIZE: 9.6 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Strawhorn Creek
RIVER MILE: 9.60
LATITUDE: 37.65140 **LONGTITUDE:** -77.32740

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth
RIVER MILE: 0.00
LATITUDE: 37.68550 **LONGTITUDE:** -77.20950

Strawhorn Creek to the Pamunkey River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE:

 Fecal Coliform

Totopotomoy Creek was assessed partially supporting of the Swimmable Use goal based on a fecal coliform violation rate of 5/27 at the Route 606 bridge (8-TPT004.37).

The segment was considered fully supporting but threatened of the Aquatic Life Use because of total phosphorus (2/19) exceedances.

IMPAIRMENT SOURCE

 Unknown

The source of the fecal coliform and phosphorus violations is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Hanover
STREAM NAME: Matadequin Creek
HYDROLOGIC UNIT: 02080106
SEGMENT ID.: VAP-F13R_MDQ01A98
SEGMENT SIZE: 5.01 - Miles
INITIAL LISTING: 1998 **TMDL Schedule** 2001 - 2004
UPSTREAM LIMIT:

DESCRIPTION: Parsleys Creek
RIVER MILE: 5.10
LATITUDE: 37.62270 **LONGTITUDE:** -77.18980

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth
RIVER MILE: 0.00
LATITUDE: 37.62670 **LONGTITUDE:** -77.12390

Segment comprises all of Matadequin Creek downstream of Parsleys Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

Assessed partially supporting of the Aquatic Life use support goal based on a pH standard violation rate of 5/24 at the Route 606 bridge (8-MDQ001.58).

Evaluated not supporting of the Swimmable use goal based on a fecal coliform standard violation rate of 6/24 at 8-MDQ001.58.

IMPAIRMENT SOURCE Unknown

The source of the impairment is considered unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Spotsylvania
STREAM NAME: Po River
HYDROLOGIC UNIT: 02080105
SEGMENT ID.: VAN-F16R_POR02A02
SEGMENT SIZE: 2.06 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Confluence of Whitehall Creek
RIVER MILE: 22.40
LATITUDE: 38.24583 **LONGTITUDE:** -77.70333

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Wrights Pond
RIVER MILE: 20.34
LATITUDE: 38.22083 **LONGTITUDE:** -77.67583

Segment begins at the confluence of Whitehall Creek with the Po River and continues downstream to the start of Wrights Pond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (4 of 22 samples - 18.2%) were recorded at DEQ's water quality monitoring station (8-POR022.56) at Route 612 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Spotsylvania
STREAM NAME: Ta River
HYDROLOGIC UNIT: 02080105
SEGMENT ID.: VAN-F18R_TAR01A00
SEGMENT SIZE: 3.27 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Confluence of Bluff Run
RIVER MILE: 3.27
LATITUDE: 38.13806 **LONGTITUDE:** -77.62167

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Mat River
RIVER MILE: 0.00
LATITUDE: 38.11667 **LONGTITUDE:** -77.58639

Segment begins at the confluence of Bluff Run to Ta River, approximately 0.7 rivermiles upstream of Route 738, downstream to its confluence with Mat River (to form Matta River).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient fecal coliform bacteria exceedances (3 of 22 samples - 13.6%) were recorded at DEQ's water quality monitoring station (8-TAR002.40) at Route 738 to assess this stream segment as partially supporting of the Clean Water Act's Swimmable Use goal for the 2002 305(b) report.

IMPAIRMENT SOURCE Unknown

The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: King William
STREAM NAME: Herring Creek
HYDROLOGIC UNIT: 02080105
SEGMENT ID.: VAN-F21R_HER01A02
SEGMENT SIZE: 4.81 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence of Dorrell Creek
RIVER MILE: 7.04
LATITUDE: 37.84917 **LONGTITUDE:** -77.19139

DOWNSTREAM LIMIT:

DESCRIPTION: Start of Herring Creek Millpond
RIVER MILE: 2.23
LATITUDE: 37.80944 **LONGTITUDE:** -77.14333

Segment starts at the confluence of Dorrell Creek with Herring Creek and continues to the start of Herring Creek Millpond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform

DEQ maintains an ambient water quality monitoring station (8-HER005.12) at the Route 609 bridge. The sampling data from this station revealed the following during the 2002 305(b) report assessment period:

- 1) Partially supporting of the Clean Water Act's (CWA) Swimming Use goal due to sufficient fecal coliform exceedances (4 of 26 samples - 15.4%);
- 2) Not supporting of the CWA's Aquatic Life Use goal due to violations of the pH water quality criteria. Nineteen (19) of 26 samples (73.1%) were below the lower range (6.0 SU) of the pH water quality criteria for Class III waters as established in 9 VAC 25-260-50 of the Virginia Water Quality Standards.

IMPAIRMENT SOURCE Unknown

The source of pH impairment is unknown, but is believed to be attributable to natural conditions. The source of fecal coliform bacteria exceedances is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: King and Queen, King William
STREAM NAME: Mattaponi River
HYDROLOGIC UNIT: 02080105
SEGMENT ID.: VAP-F23E_MPN02A98
SEGMENT SIZE: 6.87 - Sq. Mi.
INITIAL LISTING: 1998 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Tidal limit near Aylett
RIVER MILE: 39.25
LATITUDE: 37.74740 **LONGTITUDE:** -77.07960

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at York River
RIVER MILE: 0.00
LATITUDE: 37.52410 **LONGTITUDE:** -76.78520

The tidal portion of the Mattaponi River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Nutrients, EPA Overlisting (General Standards)

The Chesapeake Bay and its tidal tributaries were added by EPA to the 1998 303(d) list. EPA listed the impairment as dissolved oxygen violations caused by nutrient overenrichment. During the 2002 cycle, dissolved oxygen and chlorophyll A violation rates at multiple DEQ, Old Dominion University, and citizen monitoring stations were all acceptable (see below).

Dissolved Oxygen
0/109 at 8-MPN029.08
0/88 at 8MPN-147-ALL
0/5 at MA97-0686/TF4.4
0/24 at 8MPN-161-ALL
0/39 at 8-MPN039.10
0/57 at 8-MPN017.46
0/2 at 8MPN-159-ALL
0/130 at 8MPN-159B-ALL
0/1 at MA97-0916
1/278 at 8-MPN004.39
0/4 at MA97-0688/RET4.2

Chlorophyll A
0/18 at 8-MPN029.08
0/2 at MA97-0686/TF4.4
0/21 at 8-MPN004.39

DEQ's addition of turbidity as an impairment cause is based on the best scientific information available since the EPA overlisted this segment in 1999 for nonattainment of aquatic life use due to nutrients.

IMPAIRMENT SOURCE NPS/PS

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: King and Queen, King William, New Kent
STREAM NAME: Mattaponi River
HYDROLOGIC UNIT: 02080105
SEGMENT ID.: VAP-F23R_MPN01A00
SEGMENT SIZE: 4.72 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014

UPSTREAM LIMIT:

DESCRIPTION: Herring Creek
RIVER MILE: 43.48
LATITUDE: 37.80860 **LONGTITUDE:** -77.12070

DOWNSTREAM LIMIT:

DESCRIPTION: Tidal limit at Aylett
RIVER MILE: 39.25
LATITUDE: 37.74740 **LONGTITUDE:** -77.07960

Free flowing Mattaponi from watershed boundary to tidal limit.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs, benzo(k)fluoranthene, benzo(b)fluoranthene, arsenic

In 1996 sampling, the screening value (SV) for benzo(k)fluoranthene was exceeded in 3 sp., the SV for benzo(b)fluoranthene was exceeded in 1 sp., and the SV for arsenic was exceeded in 2 sp.

In 1994 sampling, the screening value for PCBs in fish tissue at 8-MPN041.41 was exceeded in 1 sp. In 1996 was acceptable.

The segment length was revised because the location of the tidal limit was corrected.

IMPAIRMENT SOURCE Unknown

Source of chemicals in fish tissue is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: King and Queen
STREAM NAME: Tastine Swamp and Little Tastine Swamp
HYDROLOGIC UNIT: 02080105
SEGMENT ID.: VAP-F25R_TST01A98
SEGMENT SIZE: 6.02 - Miles
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Headwaters
RIVER MILE: 10.22
LATITUDE: 37.58870 **LONGTITUDE:** -76.75460

DOWNSTREAM LIMIT:

DESCRIPTION: Corbins Pond
RIVER MILE: 4.2
LATITUDE: 37.65760 **LONGTITUDE:** -76.76800

From the headwaters of Little Tastine Swamp to Corbins Pond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

The segment was assessed partially supporting of the Aquatic Life use support goal based on a dissolved oxygen violation rate of 4/26 at 8-TST001.81 (Route 611 bridge) and 1/1 at 8-LTS001.65.

The segment was assessed partially supporting of the Swimmable use goal based on a fecal coliform violation rate of 3/27 at 8-TST001.81.

The segment was extended during the year 2002 cycle.

IMPAIRMENT SOURCE Unknown

DO violation suspected to be caused by natural conditions.

Source of fecal coliform violations is considered unknown

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: York
STREAM NAME: Queen Creek
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F26E_QEN01A00
SEGMENT SIZE: 0.21 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at headwaters of creek.
RIVER MILE: 5.62
LATITUDE: 37.30170 **LONGTITUDE:** -76.61390

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth of creek, confluence with York River.
RIVER MILE: 0.00
LATITUDE: 37.30220 **LONGTITUDE:** -76.70080

Segment extends from headwaters to mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting, Swimmable Use - Partially Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Sufficient violations of Virginia's water quality standard for dissolved oxygen and Fecal Coliform bacteria were recorded at DEQ's ambient water quality monitoring station on Queen Cr. to assess this segment as partially supporting of the Clean Water Act's Aquatic Life Use Goal and partially supporting of the Clean Water Act's Swimming Use Support Goal for the 2002 305(b) report. The cause of the dissolved oxygen standard violation is unknown. The cause of the Fecal Coliform bacteria standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE Unknown

The source of the Aquatic Life Use impairment is unknown. The source of the Swimming Use impairment is attributed to naturally occurring conditions.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN

CITY/COUNTY: Gloucester

STREAM NAME: Upper & Lower York Mainstem

HYDROLOGIC UNIT: 02080107

SEGMENT ID.: VAT-F26E_YRK01A00 th
VAT F27E YRK01A00

SEGMENT SIZE: 53.69 - Sq. Mi.

INITIAL LISTING: 1998 **TMDL Schedule** - 2010

UPSTREAM LIMIT:

DESCRIPTION: All mainstem estuarine waters from start of F26E (at West Point).

RIVER MILE: 33.48

LATITUDE: 37.52590 **LONGTITUDE:** -76.79420

DOWNSTREAM LIMIT:

DESCRIPTION: All estuarine mainstem waters to downstream terminus of segment F27E (line across mouth of York R.).

RIVER MILE: 0.00

LATITUDE: 37.24550 **LONGTITUDE:** -76.38840

All estuarine mainstem waters from start of F26E (West Point) to the end of F27E.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Nutrients, EPA Overlisting (General Standards)

EPA 1998 303d OVERLISTING is the basis to assess this segment as partially supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the nutrient designation is unknown.

DEQ's addition of turbidity as an impairment cause is based on the best scientific information available since the EPA overlisted this segment in 1999 for nonattainment of aquatic life use due to nutrients.

IMPAIRMENT SOURCE Unknown

EPA OVERLISTING on 1998 303d for the mainstem York River. The source of the reduced benthic diversity is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Gloucester
STREAM NAME: Upper York Mainstem - BIBI
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F26E_YRK02B00
SEGMENT SIZE: 0.5 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Segment extends 0.25 sq. mi. upstream from station 8-YRK022.70.

RIVER MILE: 23.20

LATITUDE: 37.41833 **LONGTITUDE:** -76.69333

DOWNSTREAM LIMIT:

DESCRIPTION: Segment extends 0.25 sq. mi. downstream from station 8-YRK022.70.

RIVER MILE: 22.20

LATITUDE: 37.41833 **LONGTITUDE:** -76.69333

Segment extends 0.25 sq. mi. upstream and downstream from station 8-YRK022.70.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Benthic data indicating low benthic diversity at fixed BIBI station 8-YRK022.70 is the basis to assess this segment as Not-Supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the low benthic diversity is unknown.

IMPAIRMENT SOURCE Unknown

The source of the reduced benthic diversity is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: York
STREAM NAME: Wormley Creek
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F27E_WOR02A00
SEGMENT SIZE: 0.26 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Segment begins 0.85 miles upstream from mouth of Wormley Creek.

RIVER MILE: 0.85

LATITUDE: 37.21290 **LONGTITUDE:** -76.46890

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth of Wormley Creek.

RIVER MILE: 0.00

LATITUDE: 37.21610 **LONGTITUDE:** -76.46940

Segment extends one half mile up and 0.35 miles downstream of station at river mile 0.35.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Data collected for PCBs indicated exceedance of the screening values is used to evaluate this segment as partially supporting of the Clean Water Act's Fish Consumption Use Support Goal for the 2002 305(b) report. Additional monitoring for confirmatory data is needed.

The cause of the elevated PCBs concentrations in fish tissue is currently unknown.

IMPAIRMENT SOURCE Unknown

The Wormley Creek monitoring station is within the migratory area of Queen Creek, which contains sediment PCBs. The land use in the watershed is mixed military installation, forested, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding area. The specific source of the elevated fish tissue toxic concentration is currently unknown, but may be related to the sediment PCBs located in Queen Creek sediments.

Additional monitoring is necessary to confirm impairment.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Gloucester
STREAM NAME: York Mouth Mainstem - BIBI
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F27E_YRK01C00
SEGMENT SIZE: 0.5 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Segment extends 0.25 sq. mi. upstream from station 8-YRK001.64.

RIVER MILE: 2.14

LATITUDE: 37.23222 **LONGTITUDE:** -76.43333

DOWNSTREAM LIMIT:

DESCRIPTION: Segment extends 0.25 sq. mi. downstream from station 8-YRK001.64.

RIVER MILE: 1.14

LATITUDE: 37.23222 **LONGTITUDE:** -76.43333

Segment extends 0.25 sq. mi. upstream and downstream from station 8-YRK001.64.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Benthic data indicating low benthic diversity at fixed BIBI station 8-YRK001.64 is the basis to assess this segment as Partially supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the low benthic diversity is unknown.

IMPAIRMENT SOURCE Unknown

The source of the reduced benthic diversity is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: Gloucester
STREAM NAME: Lower York Mainstem - BIBI
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F27E_YRK01B00
SEGMENT SIZE: 0.5 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Segment extends 0.25 sq. mi. upstream from station 8-YRK011.40.

RIVER MILE: 11.64

LATITUDE: 37.29167 **LONGTITUDE:** -76.57028

DOWNSTREAM LIMIT:

DESCRIPTION: Segment extends 0.25 sq. mi. downstream from station 8-YRK011.40.

RIVER MILE: 10.64

LATITUDE: 37.29167 **LONGTITUDE:** -76.57028

Segment extends 0.25 sq. mi. upstream and downstream from station 8-YRK011.40.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Benthic data indicating low benthic diversity at fixed BIBI station 8-YRK011.40 is the basis to assess this segment as Not-Supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the low benthic diversity is unknown.

IMPAIRMENT SOURCE Unknown

The source of the reduced benthic diversity is unknown.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: York
STREAM NAME: King Creek
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F27E_KNG01B00
SEGMENT SIZE: 0.16 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2014
UPSTREAM LIMIT:

DESCRIPTION: Segment begins at 0.68 miles within King Creek.

RIVER MILE: 0.68

LATITUDE: 37.27910 **LONGTITUDE:** -76.58910

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth of King Creek.

RIVER MILE: 0.00

LATITUDE: 37.27980 **LONGTITUDE:** -76.58590

Segment extends 0.5 mi upstream of station 8-YRK000.18 and downstream to confluence with York R.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Partially Supporting

IMPAIRMENT CAUSE: Fish Tissue - PCBs

Sufficient exceedance of fish tissue screening value for PCBs in 4 species of fish sampled in 2000 at monitoring station (8-KNG000.18) to assess this segment as partially supporting of the Clean Water Act's Fish Consumption Use Support Goal for the 2002 305(b) report.

The cause of the elevated fish tissue levels of PCBs is unknown.

IMPAIRMENT SOURCE Unknown

The King Creek monitoring station is in the area of the confluence with the York River. The York mainstem in this area has also yielded fish tissue with PCBs contamination. The land use in the watershed is mixed military installation, forested, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding area. The specific source of the elevated fish tissue toxic concentration is currently unknown, but may be related to the sediment PCBs located in Queen Creek sediments.

2002 PART 1A IMPAIRED WATERS FACT SHEET

RIVER BASIN: YORK RIVER BASIN
CITY/COUNTY: York
STREAM NAME: King Creek
HYDROLOGIC UNIT: 02080107
SEGMENT ID.: VAT-F27E_KNG01A00
SEGMENT SIZE: 0.08 - Sq. Mi.
INITIAL LISTING: 2002 **TMDL Schedule** - 2010
UPSTREAM LIMIT:

DESCRIPTION: Upstream 0.50 mi. from station (8-KNG004.46) at Colonial Parkway crossing.

RIVER MILE: 4.96

LATITUDE: 37.26960 **LONGTITUDE:** -76.61030

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream 0.50 mi. from station at Colonial Parkway crossing.

RIVER MILE: 3.96

LATITUDE: 37.27600 **LONGTITUDE:** -76.60190

Segment extends one half mile up and down stream of station at the Colonial Parkway crossing.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Swimmable Use - Partially Supporting, Aquatic Life Use - Partially Supporting

IMPAIRMENT CAUSE: Fecal Coliform, Dissolved Oxygen

Sufficient violations of Virginia's water quality standards for Fecal Coliform Bacteria and Dissolved Oxygen were recorded at DEQ's ambient water quality monitoring station on King Cr. to assess this segment as partially supporting of the Clean Water Act's Swimming Use and Aquatic Life Use Support Goals for the 2002 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE Unknown

The source of the Swimming Use impairment is attributed to naturally occurring conditions. The source of the Aquatic Life Use impairment is unknown.